

**Notice of Allowability**

Application No.

09/480,390

Examiner

Baoquoc N To

Applicant(s)

WAGNER, MICHAEL P.

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/23/04.
2. ☒ The allowed claim(s) is/are 41,46-50,65 and 70-74.
3. ☒ The drawings filed on 11 January 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

JEAN M. CORRIELUS  
PRIMARY EXAMINER

### **DETAILED ACTION**

1. Claims 41, 46, 65 and 70 are amended and claims 42-45, 51-64 and 61-69 are canceled. Claims 41, 46-50 and 65 and 70-74 are pending in this application.

#### ***Allowable Subject Matter***

2. Claims 41, 46-50 and 65 and 70-74 are allowed.

The following is an examiner's statement of reasons for allowance: None of the known prior art alone or in combination neither teach or suggest " maintaining a resource lock for each process requiring access to the resource, the resource lock having a plurality of fields requiring initialization in order for the process to access the resource, the plurality of fields including an owner indicator field for indicating an owner process for the resource;

receiving, by a first process, an inquiry from a second process inquiring whether the first process owns the resource;

determining by the first process, an owner process for the resource other than the first process;

creating a ghost lock for the first process, wherein the ghost lock is a partial instantiation of a resource lock having at least the owner indicator field initialized to indicate the owner process determined for the resource but having less than all fields initialized, and wherein the ghost lock allows the first process to identify the owner process for the resource without first sending an inquiry message to determine the owner process;

sending, by the second process, an inquiry to a third process inquiring

Art Unit: 2172

whether the third process owns the resource;

receiving, by the second process, a response from the third process  
indication whether the third process is the owner process for the resource;

determining, by the second process, that the second process is the owner  
process for the resource, if the response indicates that the third process is not the  
owner process for the resource;

creating an owner lock for the second process if the second process is the  
owner process for the resource, wherein the owner lock is a resource lock having  
all fields initialized and the owner indicator field indicating that the second  
process is the owner process for the resource; and

creating a reference lock for the second process if the third process is the  
owner process for the resource, wherein the reference lock is a resource lock  
having all fields initialized and the owner indicator field indication that the third  
process is the owner process for the resource."

Any comments considered necessary by applicant must be submitted no later  
than the payment of the issue fee and, to avoid processing delays, should preferably  
accompany the issue fee. Such submissions should be clearly labeled "Comments on  
Statement of Reasons for Allowance."

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to  
applicant's disclosure.

BEST AVAILABLE COPY

Art Unit: 2172

**Patent**

Brealey et al. (US. Patent No. 6,026,401)      Patent date: 02/15/2000

Agesen et al. (US. Patent No. 6,173,442)      Patent date: 01/09/2001

Toutonghi (US. Patent No. 5,586,318)      Patent date: 12/17/1996

Williams et al. (EP 969369 A2)      Patent date: 01/05/0000

**Non-Patent**

Kawachiya et al. (Lock reservation : Java Locks Can Mostly Do Without Atomic Operations), IBM Research, Tokyo Research Laboratory, Year 2002, Pages 130-141, ISBN: 1-58113-471-1

***Contact Information***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is (703) 305-1949 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at (703) 305-9790.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

**BEST AVAILABLE COPY**

Application/Control Number: 09/480,390

Page 5

Art Unit: 2172

(703) 872-9306 [Official Communication]

Hand-delivered responses should be brought to:

Crystal Park II

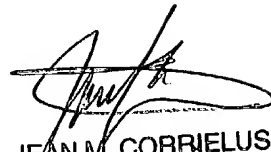
2121 Crystal Drive

Arlington, VA 22202

Fourth Floor (Receptionist).

Baoquoc N. To

July 22, 2004



JEAN M. CORRIELUS  
PRIMARY EXAMINER

BEST AVAILABLE COPY